

REMARKS

Claims 1-41 were previously pending in the application. The Applicants thank the Examiner for the allowance of Claims 20-41. The Office Action has rejected Claims 1-19. Applicants respectfully traverse.

A. Claim Rejections Under 35 U.S.C. § 102(b)

The Office Action rejected claims 1-2, 6, 7-9, 11, 14, 15 and 17 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,622,148 to Xue et al. (hereinafter the “Xue reference”). Applicants respectfully traverse. Anticipation requires that each and every element of the claims be disclosed by the cited prior art reference. Each and every element of claims 1-2, 6, 7-9, 11, 14, 15 and 17 are not taught by the Xue reference.

Claim 1 specifically requires “a power source providing the first voltage,” “controlling the operation of the actuator using the first voltage,” “providing the second voltage to the device,” and “a second voltage that is lower than the first voltage.” The Office Action indicated that battery 104 represents the power source providing the first voltage in the claim, coil 109 is the actuator of the claim, and cranking motor 102 is the device of the claim. Contrary to the requirements of claim 1, reference to Figs. 3 and 5 illustrates that the voltage applied to cranking motor 102 and coil 109 is identical. The circuits illustrated in Figs. 3 and 5 of the Xue reference teach that the battery 104 will apply approximately 12 volts to the cranking motor 102 when transistor 122 has caused contactor 120 to close the circuit to the cranking motor 102. Similarly, approximately 12 volts will be applied to coil 109 when transistor 124 is closed. Therefore, the Xue reference fails to teach “controlling the operation of the actuator using the first voltage,” and “providing the second voltage to the device,” and “a second voltage that is lower than the first voltage,” because the voltage

applied to both the actuator (coil 109) and the device (cranking motor 102) is identical. In addition, the Xue reference teaches that the battery 104 provides and the cranking motor 102 operates at almost identical voltages---completely inapposite to one significant advantage provided by the Applicants' invention. Therefore, the Xue reference does not anticipate claim 1 and even teaches away from the language of the claim.

Claims 2, 6 and 7 all depend from claim 1 and therefore include all the limitations of independent claim 1. It is therefore respectfully submitted that claims 2, 6 and 7 are allowable over the references of record for at least the same reasons as provided with respect to independent claim 1.

Independent claim 8, as amended, specifically requires "the actuator to actuate the device using the second voltage," "provides the first voltage to the device," and "the first voltage is lower than the second voltage." As discussed with respect to independent claim 1, the Xue reference does not teach these elements of the claim. The Xue reference teaches that the amount of power received from source 104 is almost identical to that received by the motor 102. The Xue reference also teaches that the power received by cranking motor 102 and coil 109 is identical. Moreover, the Xue reference clearly teaches away from the language of the claims because if the circuitry described in the Xue reference was used in Applicants' invention the invention would be inoperable. In other words, a cranking motor 102 that runs on 64 volts would be rendered inoperable if a 128 volt power source 104 was used, as taught in the Xue reference. Therefore, claim 8 is not anticipated by the Xue reference and, in fact, the Xue reference clearly teaches away from the language of the claim.

Claims 9 and 11 depend from independent claim 8 and therefore include all of its limitations. It is therefore respectfully submitted that claims 9 and 11 are allowable over the Xue reference for at least the same reasons as provided with respect to independent claim 8.

Along these same lines, independent claim 14 as amended specifically requires “controlling the actuator using the second voltage,” “providing the first voltage to the device,” and “wherein the first voltage is lower than the second voltage.” As discussed supra, the Xue reference does not teach controlling the coil 109 at a voltage different from the voltage sent to the cranking motor 102. In fact, it teaches away by teaching that the voltage sent to the cranking motor 102 and to the coil 109 is identical. Moreover, the Xue reference also teaches that the voltage provided by source 104 is almost identical to the voltage applied to the cranking motor 102 with only a negligible amount of drop in voltage. Therefore, claim 14 is not anticipated by the Xue reference.

Claims 15 and 17 depend from claim 14 and therefore include all the limitations of independent claim 14. It is therefore respectfully submitted that claims 15 and 17 are allowable over the references of record for at least the same reasons as provided with respect to claim 14.

B. Claim Rejections Under 35 U.S.C. § 103(a)

The Office Action rejected claims 3-5, 10-13, 16, 18 and 19 under 35 U.S.C. § 103(a) as being unpatentable over the Xue reference in view of U.S. Patent No. 4,862,009 to King (hereinafter the “King reference”). Applicants respectfully traverse. No combination of the Xue reference with the King reference, or any reference, can teach the language of the claims.

The Xue reference fails to teach all of the features of claims 1, 8, and 14 as highlighted in section A of the present response. The addition of the King reference does not supplement or alleviate this deficiency. Nowhere in the King reference does it teach that the voltage applied to a device is different from the voltage supplied to the actuator or that the voltage provided by a power

source is higher than the voltage provided to a device. Furthermore, even if a reference could be found to alleviate this deficiency, that reference could not be combined with the Xue reference because the Xue reference teaches away from the language of the claims as highlighted earlier. There would be no suggestion to combine with Xue reference with the hypothetical reference because by doing so the circuits illustrated in Figs. 3 and 5 of the Xue reference would be rendered inoperable. Thus, claims 1, 8, and 14 are not obvious in light of the combination of the Xue reference and the King reference, or any combination of the Xue reference with any reference.

Claims 3-5, 10-13, 16, 18, 19 all depend from independent claims 1, 8, and 14 and therefore include all of their limitations. It is therefore respectfully submitted that claims 3-5, 10-13, 16, 18, 19 are allowable over the references of record for at least the same reasons as provided with respect to claims 1, 8, and 14.

C. Conclusion

Accordingly, it is believed that claims 1-19 are in condition for allowance and Applicants respectfully request that they pass issue. Reconsideration of the present application as amended is respectfully requested. To facilitate allowance of the application, the Examiner is invited to telephone the undersigned attorney.

Respectfully submitted,

By



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